
Overview

This unit is about your contribution to starting up equipment. This must include rotating equipment, non-rotating and storage equipment, heat transfer equipment, control equipment.

This unit deals with the following:

- 1 Prepare to start up
- 2 Start up equipment
- 3 Communicate information during start-up
- 4 Correct abnormal start-up conditions

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

Previous Version:

Adapted from Unit 2 of Refinery Field Operations NOS – version April 2005

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Performance criteria

You must be able to:

- P1 obtain relevant authorisation for start-up to proceed
- P2 correctly identify equipment and checked status
- P3 correctly follow operational procedures for checks and tests
- P4 identify the locations of emergency isolation valves and their reset mechanisms
- P5 identify any discrepancies between the plant drawings and the procedures
- P6 report any discrepancies to the appropriate personnel
- P7 correctly line up the equipment
- P8 inform appropriate personnel that start-up is imminent
- P9 correctly start up equipment in accordance with specified procedures
- P10 achieve operational conditions at each stage before proceeding to the next
- P11 achieve normal operating conditions within required timescale
- P12 inform relevant personnel when start-up is complete
- P13 complete all relevant documentation
- P14 identify abnormal conditions
- P15 take prompt and appropriate action to correct the abnormality
- P16 identify the impact of the abnormality on other areas and inform relevant personnel
- P17 work safely in accordance with operational requirements

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Knowledge and understanding

You need to know and understand:

- K1 how to select, use and care for PPE (e.g. sight/hearing protection, gloves, footwear, hard hats, respirators)
- K2 the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- K3 how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules)
- K4 plant and equipment (to include rotating; non-rotating and storage; heat transfer; control) start-up procedures
- K5 plant layout and operating manuals
- K6 how to work with and within the Permit to Work system
- K7 how to access relevant documentation (e.g. permits, standard operating procedures)
- K8 the function of the equipment (to include rotating, non-rotating and storage, heat transfer, control) to be started in the operation of the plant and process
- K9 the properties of the material contained in the equipment
- K10 the potential hazards associated with checks and tests (e.g. visual inspection, equipment integrity tests, line-up)
- K11 the start-up over-ride procedures for the equipment
- K12 line up and control systems as on process and instrumentation diagrams
- K13 trip systems and logic sequences
- K14 the reasons for the defined sequence in the start-up and the consequences of not following it
- K15 the reasons for timing of each stage
- K16 the reasons for operating equipment (to include rotating, non-rotating and storage, heat transfer, control) to specified conditions
- K17 the possible process excursions and acceptable tolerances
- K18 the normal range of operating conditions and acceptable conditions
- K19 the reasons for achieving conditions within a given timescale
- K20 the consequences of correct conditions not being achieved
- K21 alarm systems
- K22 operating parameters
- K23 the parameters to be measured, checked and the acceptable tolerances (e.g. equipment integrity tests, line-up)
- K24 the reasons for recording the equipment conditions (to include rotating, non-rotating and storage, heat transfer, control conditions including unusual process readings). The nature and extent of information to be communicated (e.g. status of start-up equipment, status of interconnected plant and equipment)

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- K25 the appropriate selection and effective use of communication (e.g. face to face, telephone, radio, written) links between field operators and others
- K26 the importance of clarity and accuracy
- K27 the location of equipment records and methods of recording
- K28 how to identify abnormal conditions (to include those associated with mechanical, electrical and instrument integrity)
- K29 the appropriate responses to alarm conditions
- K30 the potential hazards during start-up and the actions to be taken
- K31 the consequences of delayed response to hazards
- K32 how to identify the need for appropriate assistance and where to find it
- K33 the availability of standby equipment
- K34 the emergency procedures

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Suite Downstream Operations

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